

d his

(FILE 'HOME' ENTERED AT 16:54:47 ON 10 DEC 2001)

FILE 'REGISTRY' ENTERED AT 16:54:55 ON 10 DEC 2001

L1 11 (3<NI<5 AND .5<SI<1 AND 0<MG<.5 AND 0<SN<2 AND .2<ZN<2 AND 50<C

FILE 'HCA' ENTERED AT 16:55:55 ON 10 DEC 2001

L2 10 L1

L3 3363 (NICKEL OR NI) AND (SILICON OR SI) AND (MAGNESIUM OR MG) AND (T

L4 10 L2 AND L3

SELECT IPC L4 1-10

L5 320117 E1-15

L6 1125 L5 AND GRAIN AND TENSIL?

L7 28 L6 AND L3

L8 27 L7 NOT L4

FILE 'REGISTRY' ENTERED AT 17:15:25 ON 10 DEC 2001

L9 3961 (0<ZN<2 AND 50<CU)/MAC

FILE 'HCA' ENTERED AT 17:15:41 ON 10 DEC 2001

L10 96 L5 AND L9 AND L3 AND (HIGH(2A)(TENSIL? OR STRENGTH))

L11 92 L10 NOT L8

AN 116:179230 HCA
TI Manufacture of **copper** alloy sheets having high strength,
electric conductivity, and bendability

IN Hirano, Yasuo

PA Nippon Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03188247	A2	19910816	JP 1989-322703	19891214

AB An ingot of **Cu** alloy contg. **Ni** 0.4-4.0, **Si** 0.1-1.0, and **Sn** 0.1-3.5% with **Ni** + **Si** + **Sn** <5.0% is soln. treated at .gtoreq.700.degree. for **grain** size 1-10 .mu.m, cold processed for draft <40%, and aged at 300-700.degree.. The **Cu** alloy, useful for elec. devices, optionally contains 0.001-2.0% **Fe**, **Mg**, **Al**, **Cr**, **Mn**, **Co**, **Zn**, **Ti**, **Zr**, **Pb**, **Cd**, **In**, **Ag**, and/or **P**. Thus, a **Cu** alloy (contg. **Ni** 1.6, **Si** 0.4, and **Sn** 0.5%) manufd. according to the invention had **tensile** strength 63 kg/mm², elongation 14%, good bendability, and elec. cond. 35% of **Cu** std.

AN 120:83730 HCA
TI Copper-composite parts for vibration dampers
IN Asai, Masato
PA Furukawa Electric Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05222467	A2	19930831	JP 1992-58930	19920212

AB The parts used in bending are manufd. the Cu-alloy composites reinforced with aramid fibers and/or carbon fibers. The Cu alloys showing good strength, stress relaxation, and corrosion resistance contain Ni 1.2-3.6, Si 0.3-1.0, Be 0.2-2.5, Ti 0.2-4.5, Sn 0.1-3.5, Co 0.1-2.5, Zn 0.1-5.0, and/or Mg 0.05-0.5%.

AN 127:361652 HCA
TI Copper alloys having good discharge wear resistance for electric contacts

IN Ogura, Tetsuzo

PA Kobe Steel, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09263864	A2	19971007	JP 1996-97785	19960326
AB	Claimed Cu alloys contain 0.1-1.0 wt.% Si. Also claimed are Cu alloys contg. 0.1-1.0 wt.% Si and 0.01-6.0 wt.% (as total) .gt;req.1 of metals selected from Mg 0.01-1.0, Al 0.01-1.0, Ti 0.01-1.0, Cr 0.01-1.5, Mn 0.01-1.0, Fe 0.01-3.0, Co 0.01-3.0, Ni 0.01-4.0, Zn 0.01-5.0, Zr 0.01-1.0, Ag 0.01-1.0, and/or Sn 0.01-2.0 wt.%.				

AN 116:49773 HCA
TI Copper alloy with good elastic characteristics and mechanical strength for migration-resistant electric terminal and connector
IN Miyato, Motohisa; Hosokawa, Isao
PA Kobe Steel, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03226536	A2	19911007	JP 1990-19719	19900130
	JP 2977845	B2	19991115		

AB The Cu alloy contains Ni 0.4-4.0, Si 0.1-1.0, Zn 1.0-5.0 (.noteq.1.0), Mg 0.05-0.5, Sn 0.1-0.5, Cr, Ti, and/or Zr 0.001-0.10 (.noteq.0.01) wt.%.

AN 2002:90278 HCAPLUS
DN 136:121833
TI Copper alloy for electronic or electric equipment parts
IN Usami, Takayuki; Hirai, Takao
PA The Furukawa Electric Co., Ltd., Japan
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002008479	A1	20020131	WO 2001-JP4351	20010524
	W: CN, KR, US				
	RW: DE, FI, FR, IT				
	JP 2002038228	A2	20020206	JP 2000-224425	20000725
	EP 1325964	A1	20030709	EP 2001-934329	20010524
	R: DE, FR, IT, FI				
	US 2002127133	A1	20020912	US 2001-5880	20011102
	US 2003165708	A1	20030904	US 2003-354151	20030130
PRAI	JP 2000-224425	A	20000725		
	WO 2001-JP4351	W	20010524		
	US 2001-5880	A2	20011102		

AB The copper alloy for electronic or elec. equipment parts comprises 1.0-3.0 Ni, 0.2-0.7 Si, 0.01-0.2 Mg, 0.05-1.5 Sn, 0.2-1.5Zn and <0.005% S. The alloy has a specific crystal grain diam. and a specific ratio of the longer diam. of a grain in a cross section parallel with the direction of a last plastic working to the longer diam. of a grain in a cross section perpendicular to the direction of the last plastic working, and/or a sp. surface roughness after the last plastic working.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

AN 131:192767 HCA
TI Copper alloys for electric conductive springs
IN Hirai, Takao; Usami, Takayuki; Yoshida, Koichi; Oyama, Yoshimasa
PA Furukawa Electric Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11222641	A2	19990817	JP 1998-33628	19980130

AB The Cu alloys contain Ni 1.0-3.5, Si 0.2-0.9, Mg 0.01-0.20, Sn 0.05-1.5, and optionally Zn 0.2-1.5 wt.% (S and O are suppressed to <0.005 wt.%, for each), and have crystal grain size .gtoreq.1 .mu.m and .ltoeq.25 .mu.m. The Cu alloys may further contain (A) .gtoreq.1 selected from Ag 0.005-0.3, Mn 0.01-0.5, Fe 0.005-0.2, Cr 0.005-0.2, Co 0.05-2.0, and P 0.005-2.0, and/or (B) Pb 0.005-0.1 and/or Bi 0.005-0.03 wt.%. Prepn. of the Cu alloys involves (1) cold working, (2) recrystg. at 700-920.degree., and optionally (3) aging at 420-550.degree., and (4) cold working by .ltoeq.25% draft, and (5) low-temp. annealing. In the prepn., cold working by .ltoeq.25% draft may be carried out after 2. The alloys show excellent mech. properties, elec. cond., stress-release performance, and bending formability.

AN 119:144571 HCA
TI Copper alloy trolley wires
IN Eguchi, Tatsuhiko; Asai, Masato; Shinozaki, Shigeo; Ooyama, Yoshimasa
PA Furukawa Electric Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	-----	-----	-----	-----	-----	
PI	JP 05125469	A2	19930521	JP 1991-319990	19911106	
AB	The wires contain Ni 1.0-4.0, Si 0.3-1.0, and optionally Ag 0.01-1.0, Mg 0.01-1.0, Zn 0.01-1.0, Fe 0.01-0.5, Mn 0.01-0.5, and/or Sn 0.01-0.5%. The wires have high elec. cond. and strength, and excellent wear and heat resistance.					

AN 131:192767 HCA
TI Copper alloys for electric conductive springs
IN Hirai, Takao; Usami, Takayuki; Yoshida, Koichi; Oyama, Yoshimasa
PA Furukawa Electric Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	JP 11222641	A2	19990817	JP 1998-33628	19980130	
AB	The Cu alloys contain Ni 1.0-3.5, Si 0.2-0.9, Mg 0.01-0.20, Sn 0.05-1.5, and optionally Zn 0.2-1.5 wt.% (S and O are suppressed to <0.005 wt.%, for each), and have crystal grain size .gtoreq.1 .mu.m and .ltoeq.25 .mu.m. The Cu alloys may further contain (A) .gtoreq.1 selected from Ag 0.005-0.3, Mn 0.01-0.5, Fe 0.005-0.2, Cr 0.005-0.2, Co 0.05-2.0, and P 0.005-2.0, and/or (B) Pb 0.005-0.1 and/or Bi 0.005-0.03 wt.%. Prepn. of the Cu alloys involves (1) cold working, (2) recrystg. at 700-920.degree., and optionally (3) aging at 420-550.degree., and (4) cold working by .ltoeq.25% draft, and (5) low-temp. annealing. In the prepn., cold working by .ltoeq.25% draft may be carried out after 2. The alloys show excellent mech. properties, elec. cond., stress-release performance, and bending formability.					

AN 116:199114 HCA
TI Low-strength **copper** alloy material having fine **grains**
IN Toe, Tamio
PA Nippon Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03193849	A2	19910823	JP 1989-331286	19891222
AB	The Cu alloy contg. 3-25% Zn and 0.005-2.0% optional Pb, Fe, Sn, Al, Mn, Ni, P, As, Ti, Cr, Co, Zr, V, Be, Cd, Si, B, In, Ti, Mg, Hf, and/or Ge is cold-rolled for .gtoreq. 75% draft, finish annealed for < 0.015 mm in grain size, and cold-rolled in option for 1-15% draft to induce a fine-grained texture for easy forming into heat exchangers. The cold-rolled product shows tensile strength 33.0-40.3 kg/mm ² , elongation 36.4-41.0%, Erickson value 12.4-13.3 mm, and grain size 0.003-0.010 mm.				

AN 115:13739 HCA
TI Manufacture of **copper** alloy strip having deep drawability and machinability

IN So, Hidehiko

PA Nippon Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02170955	A2	19900702	JP 1988-321883	19881222

AB The **Cu** alloys contg. **Ni** 7-25, **Zn** 5-32, and optionally **P**, **Sn**, **Si**, **Mg**, **Ti**, **Cr**, **Zr**, **Al**, **Fe**, **Pb**, **Mn**, and/or **Co** 0.001-5% are cold rolled at .gtoreq.35% draft, annealed in the 1st stage to give a microsructure having the max./min. grain size ratio .ltoreq.2, further cold-rolled at .gtoreq.35% redn., annealed in the 2nd stage for av. grain size of 2-10 um, and finished by stress-relief annealing to manuf. high-strength strip for elec. connectors. Thus, the **Cu** alloy (contg. **Ni** 18, **Zn** 18, **Ti** 0.50, and **Si** 0.32%) was cold rolled at 50% draft, annealed in the 1st stage to give the ratio of 1.3, further cold rolled at 60% draft, annealed in the 2nd stage to give av. grain size of 4 .mu.m, and then annealed to manuf. the strip with tensile strength 70.4 kg/mm², elongation 6.9%, and Vickers hardness 214.

AN 115:62613 HCA
TI Copper alloys for lead frames of semiconductor devices
IN Kazama, Keizo; Shimizu, Yuichi; Osako, Toshiyuki
PA Sumitomo Metal Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02200747	A2	19900809	JP 1989-17581	19890130

AB A Cu alloy for a lead frame of a semiconductor device contains Ni 1-4, Si 0.2-1, V 0.01-0.1, Zn 0.05-1, and optionally Sn 0.1-3 and/or Mg 0.01-1 wt.% and has high strength, elec. cond., hot- and cold-workability, high adhesion strength of coatings, solderability, etc.

AN 115:13645 HCA
TI Copper alloy for polished dies in forming of plastics
IN Nakayama, Hiroaki; Iwamura, Takuro
PA Mitsubishi Metal Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02194139	A2	19900731	JP 1989-11538	19890120
	JP 2629332	B2	19970709		

AB The Cu alloy for easy mirror finishing and high-strength dies resistant to corrosion contains Ni 2.0-6.5, Ti 0.7-3.3, Cr 0.1-1.5, Si 0.001-0.1, and optionally Zr 0.001-0.5, Co 0.001-0.5, Fe 0.001-0.5, Sn 0.05-1.2, Mn 0.05-1.2, Zn 0.05-1.2, Mg 0.001-0.2%, P 0.001-0.2%, and rare-earth metals 0.001-0.2%. The Cu alloy typically shows tensile strength of 63.4-73.9 kg/mm², Vickers hardness 235-261, and elec. cond. 47.9-57.0% of Cu std.

AN 110:241152 HCA
TI **Copper** alloys for electric apparatus parts
IN Asai, Masato; Terashita, Michiaki; Oyama, Yoshimasa
PA Furukawa Electric Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63274729	A2	19881111	JP 1987-106931	19870430
	JP 04040417	B4	19920702		

AB The title Cu alloys contain **Sn** 2.0-8.0, **Ni** 3.5-10.0, **Si** 0.6-5.0, .gtoreq.1 of Cr, Mn, Ti, Al, and Fe 0.03-2.0 in total, and optionally .gtoreq.1 of Ag, **Mg**, Ca, misch metal, Te, B, Nb, In, V, La, Y .ltoreq.0.2 each, Be, Zr, **Zn**, Co, and Cd .ltoreq.1.5 wt.% each and .ltoreq.1.5 wt.% in total and impurity concns. P .ltoreq.500 ppm, S .ltoreq.10 ppm, and O .ltoreq.50 ppm. The alloys have **high strength**, processibility, elec. and thermal cond., heat and corrosion resistance, and are useful for semiconductor leads, connectors, switches, etc.

AN 116:26123 HCA
TI Manufacture of **copper** alloy strip for radiator plates
IN Toe, Tamio
PA Nippon Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03087326	A2	19910412	JP 1989-221524	19890830
AB	Cold-rolled strip is manufd. from ingot slabs of the Cu alloys contg. Zn 1-5, Sn 0.01-3, and optionally Ni 0.1-5, Si 0.01-2, and Al , Fe , Pb , As , Sb , B , Co , Cr , Mn , Te , In , Ti , Zr , Hf , Be , Mg , Ag , Cd , and/or Ge 0.001-2%. The strip is then annealed and finish rolled at 3-20% draft for the product with grain size .ltoreq.15 .mu.m as well as high stress-corrosion crack resistance, strength, formability, and paint adhesion. Thus, the strip from Cu-4.2 Zn-1.0% Sn alloy having grain size of 10 .mu.m after cold rolling and annealing showed tensile strength of 31.2 kg/mm ² and elongation 55.3%.				

AN 109:195637 HCA
TI Copper alloy sheet of high strength and electric conductivity,
and its manufacture

IN Tsuji, Masahiro; So, Hidehiko
PA Nippon Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63130752	A2	19880602	JP 1986-275155	19861120
AB	The high-strength Cu alloy sheet is manufd. for integrated-circuit leads. The Cu alloy contains Ni 0.4-4.0, Si 0.1-1.0, and optionally P, As, Sb, Fe, Co, Cr, Sn, Al, Ti, Zr, Hf, Mg, Be, Zn, and/or Mn 0.01-1.0 each for total 0.01-0.2%. The Cu alloy is aged 1-20 h at 300-600.degree., cold rolled for .gtoreq.30% draft, and then stress-relief annealed. Thus, an ingot of Cu alloy contg. Ni 1.6, Si 0.4, Zn 0.4, and O 0.0006% was hot				
	rolled at .apprx.800.degree. to 7.5 mm, trimmed, cold rolled to 1.5 mm, annealed to have a grain size of .ltoreq.10 .mu.m, finish rolled to 0.8 mm, and heat treated 6 h at 420.degree.. The sheet was cold rolled and then stress relieved 0.5 min at 500.degree. to obtain a product showing tensile strength 69.5 kg/mm ² , elongation 6%, and elec. cond. (% IACS) 53, vs. 68.9 kg/mm ² , 10%, and 4 for Fe-42% Ni alloy.				

AN 116:89249 HCA
TI High-strength phosphor bronze
IN Hirano, Yasuo; So, Hidehiko
PA Nippon Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF

DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	JP 03104845	A2	19910501	JP 1989-240250	19890918	
AB	The bronze contains Sn 0.5-3.5, P 0.001-0.3, Ni 0.01-0.5, and optionally Fe , Mg , Al , Si , Cr , Mn , Co , Zn , Ti , Zr , and/or Pb 0.001-2%. The bronze is annealed at 150-650.degree. for grain size of 0.001-0.025 mm and pptn. of Ni phosphide, and cold rolled at <90% draft. Thus, a bronze contg. Sn 2.0, P 0.05, and Ni 0.3% was annealed at 350.degree. and cold rolled at 50% draft to 0.25 mm. The manufd. bronze strips had tensile strength 60 kg/mm ² , elongation 12%, and IACS elec. cond. 30%, vs. 54 kg/mm ² , 15%, and 28% for similar strips of Cu alloy contg. 2% Sn and 0.05% P .					

AN 99:199350 HCA
TI Copper alloys for semiconductor device lead wires
PA Nippon Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 58123846	A2	19830723	JP 1982-6063	19820120
	JP 60045698	B4	19851011		

AB The Cu alloys contain Ni 0.4-4.0, Si 0.1-1.0%, O .1toeq.10 ppm, and optionally .gtoreq.1 P, As, Sb 0.001-0.1 each, Fe, Co, Cr, Sn, Al, Ti, Zr, Mg, Be, Zn, and Mn 0.01-1.0 each, but totalling 0.001-2.0%. The grain size is .ltoreq.5 .mu. diam. Thus, a 100 mm thick ingot was rolled at 800.degree. to 7.5 mm, scalped, cold rolled to 1.5 mm, annealed at 800.degree. for 5 min, cold rolled to 0.8 mm, and heated 6 h at 420.degree.. The Cu alloy [87781-33-7] sheet contg. Ni 1.60, Si 0.40%, and O 6 ppm with grain size of 2 .mu. had satisfactory solderability, no swelling after 5 .mu. thick Ag plating and heating 5 min at 35.degree., tensile strength 68.0 kg/mm², and elongation 13.0%. Comparable values for the Cu alloy having a 7 .mu. grain size were satisfactory, swelling, 45.0 kg/mm², and 21.2%.

AN 111:11181 HCA
TI Manufacture of **high-strength copper** alloy
material

IN Asai, Masato; Oyama, Yoshimasa; Terashita, Michiaki; Shiga, Shoji
PA Furukawa Electric Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63266049	A2	19881102	JP 1987-101401	19870424
	JP 2555067	B2	19961120		

AB The **high-strength** material for elec. and electronic parts is manufd. from the Cu alloy contg. Sn 1.5-10.0, Ni 0.1-10.0, Si 0.1-5.0, and optionally Zn, Fe, Mn, Co, Al .ltoreq.2.5 each, Mg, As, Ca, V, Y, rare earth elements, In, Pb, Sb, Bi, Te, Ag, Au, P, B, Cr, Ga, Ti, Zr, and/or Ge .ltoreq.0.5% (.ltoreq.3.0% as total). The Cu alloy from continuous casting is machined, cold-worked for 20-95% draft, heated at 300-950.degree. for 5 s-24 h in nonoxidizing atm., cooled at 0.01-500.degree./s, pickled and/or machined, cold-worked for 5-90% draft, heated .gtoreq.1 time at 200-650.degree. for 5 s-24 h in nonoxidizing atm. The product shows resp. tensile strength, elongation, and soldered joint strength of 78.1 kg/mm², 10.8%, and 1.0 kg/mm² as well as excellent bending workability and paint adhesion.

AN 107:203595 HCA
TI **High-strength** electric conductor from **copper**
-base alloy
IN Shimada, Takashi
PA Nippon Mining Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 62133050	A2	19870616	JP 1985-270785	19851203

AB For **high-strength** conductors, the **Cu** alloy contains Ti and **Sn** 0.1-5.0 each, and optionally Pb 0.005-0.5 and/or .gtoreq.1 of P, Al, Zn, Ni, Si, Be, Fe, Mn, Mg, Cr, Co, Zr, As, Ag, Cd, In, Sb, Te, Ge, and/or Hf 0.05-1.0 for total 0.005-2.0%. The **Cu** alloy is soln.-treated, age-hardened for 10 s to 10 h at 200-700.degree., cold-rolled for .gtoreq.10% redn., and then heat-treated for 10 s to 10 h at 200-700.degree.. Thus, an ingot of **Cu**-2 Ti-1.8% **Sn** alloy at 800.degree. was hot-rolled into a plate 5 mm thick, and trimmed; heated for 30 min at 800.degree., and quenched in water; aged 1.5 h at 450.degree.; cold-rolled into strip 0.5 mm thick; and heated 3 min at 450.degree.. The strip product showed tensile strength 120 kg/mm² and elec. cond. 30% of IACS, and was suitable for precision springs.